DEPARTMENT OF
BUSINESS DEVELOPMENT

March 9, 2004

Re: Miami-Dade County Engineering, Architectural, Landscape Architecture and Surveying, and Mapping Professional Services Certification Request Package

Dear Consultant:

Attached herewith, please find a current copy of the Professional Services Certification Request Package. It contains the "Guidelines for obtaining Miami-Dade County Engineering, Architectural, Landscape Architecture and Surveying and Mapping Professional Services Certification", the "Miami-Dade County Engineering, Architectural, Landscape Architecture and Surveying, and Mapping Professional Services Certification Request Questionnaire", the sample format for the "Category Information Form", and the descriptions of the "Miami-Dade County Work Class Categories".

The Professional Services Certification Request Package has been recently updated to include work descriptions for categories 3.01-Site Development and Parking Lot Design; 3.02 – Highway Design; and 3.03-Bridge Design. In addition, sub-categories have been included in the following work class categories: 3.02A – Tunnel Design.

Please carefully review the certification request package prior to submittal. **An incomplete application may result in a delay in the processing of your application and review by the Technical Certification Committee.** If your firm is approved in a particular category, your technical certification expires one year from the date of issuance, unless otherwise indicated on the Statement of Certification.

In addition to fulfilling the requirements for technical certification, Miami-Dade County also requires that your firm also obtain a current Pre-Qualification Certification (PQC) Certificate from the Department of Business Development (DBD). PQC is the culmination of the various certification processes, which includes, but may not be limited to, technical certification, affirmative action plan verification, and vendor registration. Therefore, if you have not already done so, please submit your PQC application to DBD **immediately** for review.

Should you have any questions regarding the referenced subject or the contents of the certification package, please contact Fredric Toney, DBD Senior Professional Services Specialist, at (305) 375-1048.

Sincerely,

Marsha E. Jackman

Marsha E. Jackman
Director, DBD

MIAMI-DADE COUNTY
ENGINEERING, ARCHITECTURAL, LANDSCAPE ARCHITECTURE AND SURVEYING AND MAPPING
PROFESSIONAL SERVICES CERTIFICATION

CERTIFICATION COMMITTEE

Luisa Millan-Donovan, R.A. – Chairperson
John Chorlog, P.E. – Member
Marina Blanco-Pape, P.E. – Member

GUIDELINES FOR OBTAINING MIAMI-DADE COUNTY ENGINEERING, ARCHITECTURAL, LANDSCAPE ARCHITECTURE AND SURVEYING AND MAPPING PROFESSIONAL SERVICES CERTIFICATION

A. **All correspondence regarding Miami-Dade County Professional Services Certification shall be addressed to:**

Mr. Fredric Toney
DBD Senior Professional Services Specialist
Business Development Department
Courthouse Center Building
175 N.W. 1st Avenue, 28th Floor
Miami, Florida 33128-1835
Phone Number: (305) 375-1048

B. The initial certification request and subsequent annual recertification requests must consist of the following:

1. A cover letter on the organization's letterhead requesting certification or recertification shall be addressed to Mr. Fredric Toney, **specifically stating which categories of professional work are being requested**.

2. A completed, signed and sealed Miami-Dade County Engineering, Architectural, Landscape Architectural and Surveying and Mapping Professional Services Certification Request Questionnaire. The questionnaire must be signed and sealed by a Florida registered professional engineer, architect, or landscape architect and surveyor and mapper employed full time by the firm, utilizing his or her personal professional registration seal.

3. A **current** copy of the firm's current authorization to transact business in the State of Florida issued by the Secretary of State (as required); a copy of the firm's authorization(s) to offer professional services; and a copy of the certifying agent's license issued by the Florida Department of Business and Professional Regulation (as applicable, from the Boards of Professional Engineers, Architecture, Landscape Architecture and/or Surveyors and Mappers), or college degree.

4. **A separate completed out, signed and sealed Category Information Form for each category of work being requested.** Please refer to the attached category descriptions for the areas of work covered by each category and their individual personnel requirements. On the top portion of the form, please list the names, registration numbers (if applicable), area(s) of responsibility and years of experience for the firm's certifying agents; on the bottom portion of the form, please describe at least three or more relevant projects for each of the certifying agents, including the professional's responsibilities in connection with each project, the services provided, and enough information to evaluate the project's scope and complexity. **The format must be adhered to in presenting the information.**

Consultants are encouraged to computerize the format for flexibility and future convenience in requesting future additional category request for certifications and/or re-certification. Only the experience of the full-time employed Florida registered or restricted professionals of the firm listed as certifying agents on the form(s) will be considered by the Certification Committee in its evaluation of the firm's capabilities. Each form must be signed and sealed by a Florida registered professional engineer, architect, landscape architect or surveyor and mapper employed full time by the firm, utilizing his or her personal professional registration seal or signed by the individual whose degree is referenced for restricted professional certification.

5. A detailed education and experience resume for each of the certifying agents listed in the Category Information Form(s).

C. Miami-Dade County defines "full-time" employee as an individual employed by a firm and regularly scheduled to work at least 35 hours per week. An individual may not be a certifying agent for more than one firm at a time.

D. The Certification Committee will review the information submitted by each firm and will ascertain whether the firm is qualified to render the required services under each requested category, according to law and regulations prepared by the County Manager.

E. Certification in a given work category will be granted based upon the information submitted for review; however, the number of Florida registered professionals and other technical support personnel required for particular projects will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel required to adequately and competently perform the work in the desired timeframe.

F. Certification will expire one year from the date of issuance, unless otherwise indicated on the Statement of Certification. **Recertification must be requested not less than 30 days prior to the indicated expiration date.**

G. It is required that the Certification Committee be notified immediately in writing, through the Department of Business Development, of any change(s) in professional personnel and any significant change in the strength of support personnel which occurs during the certification's effective term. Failure to comply with this requirement may result in revocation of the firm's certification. The Committee must also be notified, **in writing,** of any change of address, firm's name change, or firm dissolution.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Category Information Forms must contain specific information as to the technical nature of projects and their association with the other professional work class categories demonstrating satisfactory experience activities required by this class by the full-time employed Florida professional engineer(s) and/or architect(s) registered in their specific fields, used by the firm to obtain County Certification.

The Certification Certificate will indicate the main work class category number preceded by the applicable work class designations in which the professional experience is based upon.

CATEGORY FORM: Category 19.00 only

Certification in this category shall be granted based on qualifications and the adequacy of professionals and their Value Analysis and Life-Cycle Costing experience. The following statement must be inserted at the last page of the category forms and must include signature, title, date and seal of the qualifying professional.

I hereby certify that the above employees are qualified in performing Value Analysis and Life-Cycle Costing studies as outlined in ASTM E 1699-95, “Standard Practice for Performing Value Analysis of Building and Building Systems” and the “Value Methodology Standard” of SAVE International and that to the best of my knowledge, the information contained in these forms is true and correct.

MIAMI-DADE COUNTY
ENGINEERING, ARCHITECTURAL, LANDSCAPE ARCHITECTURE AND SURVEYING AND MAPPING
PROFESSIONAL SERVICES CERTIFICATION REQUEST QUESTIONNAIRE

1. Name of Firm: _____

   Address: _____

   _____Phone No._(___)_____ Fax (___)_____

2. Name & Address of Parent Company (if applicable): _____

   _____

3. Name & Title of Contact Person: _____

4. Type of Firm: Corporation ____ Partnership ____ Sole Proprietorship ____ Other _____

   If Corporation complete the following and attach copy of certificate: ___

   a. Date incorporated: _____

   b. State Incorporated: _____

   c. Date authorized in Florida: _____

   d. President's Name: _____

   If Partnership complete the following:

   a. Date organized: _____

   b. Type: General ___ Limited ___ Other _____

   c. Names of Partners: _____

   _____

   Secretary of State's Charter Number: _____

5. Department of Professional Regulation Certification(s):

   Engineering Business License No. _____ Exp. Date _____

   Land Surveyor Business License No. _____ Exp. Date _____

   Architectural Business License No. _____ Exp. Date _____

   Landscape Architecture Business License No. _____ Exp. Date _____

   Geologist Business License No. _____ Exp. Date _____

   Degree (Bachelor's, Master's, Doctorate):

   Degree conferred: _____In _____ Date_____

   (ATTACH A COPY OF EACH LICENSE/DEGREE ENTERED ABOVE)

6. Total number of full-time technical personnel (non-registered) employed by your firm: _____

7. Total number of full-time Florida registered and restricted professional personnel employed by your firm: ____

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE INFORMATION CONTAINED IN THIS CERTIFICATION PACKAGE IS TRUE AND CORRECT AND THAT THIS FIRM IS DULY AUTHORIZED TO CONDUCT BUSINESS IN THE STATE OF FLORIDA AND POSSESSES THE EXPERTISE TO PERFORM THE WORK ASSOCIATED WITH THE REQUESTED CERTIFICATION CATEGORIES. I FURTHER CERTIFY THAT NEITHER THE FIRM NOR ANY OFFICER, DIRECTOR, EMPLOYEE OF THE FIRM, OR ANY OF ITS AFFILIATES, HAS BEEN CRIMINALLY OR CIVILLY CHARGED WITH ANTITRUST CRIMINAL ACTS UNDER STATE OR FEDERAL LAW WHICH INVOLVED FRAUD, BRIBERY, CONSPIRACY, ANTITRUST VIOLATIONS OR MATERIAL MISREPRESENTATION WITH RESPECT TO A PUBLIC CONTRACT.

_____ _____ _____

SIGNATURE (SEAL)* TITLE DATE

*** State of Florida professional registration seal of signator**

MIAMI-DADE COUNTY
ENGINEERING, ARCHITECTURAL, LANDSCAPE ARCHITECTURE AND SURVEYING AND MAPPING PROFESSIONAL SERVICES CERTIFICATION
CATEGORY INFORMATION FORM

CATEGORY/SUB-CATEGORY TITLE & NUMBER:

List the full-time, Florida registered professionals employed by your firm qualified to do this work. Attach a detailed education and experience resume for each certifying agent listed supporting their ability.

Name of Employee/ City & State of Residence	Title/ Areas of Responsibility	Florida Registration No. (or degree grantor)	Years of Professional Experience

MIAMI-DADE COUNTY
ENGINEERING, ARCHITECTURAL, LANDSCAPE ARCHITECTURE AND SURVEYING AND MAPPING PROFESSIONAL SERVICES CERTIFICATION
CATEGORY INFORMATION FORM

CATEGORY/SUB-CATEGORY TITLE & NUMBER:

List recent projects completed for this type of work

Name of Employee/ Areas of Responsibility	Name/Location of Project/ Date Completed	Description of Project/ and Technical Duties

I hereby certify, that to the best of my knowledge, the information contained in these forms is true and correct.

SIGNATURE (SEAL)*	TITLE	DATE

* State of Florida professional registration seal of signator

MIAMI-DADE COUNTY
ENGINEERING, ARCHITECTURAL, LANDSCAPE ARCHITECTURE AND SURVEYING AND MAPPING PROFESSIONAL SERVICES CERTIFICATION

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- ❑ Industrial Hygiene
- ❑ Asbestos
- ❑ Ambient Air
- ❑ Bio-Hazardous
- ❑ OSHA

MIAMI-DADE COUNTY
ENGINEERING, ARCHITECTURAL, LANDSCAPE ARCHITECTURE AND SURVEYING AND MAPPING PROFESSIONAL SERVICES CERTIFICATION

MIAMI-DADE COUNTY
ENGINEERING, ARCHITECTURAL, LANDSCAPE ARCHITECTURE AND SURVEYING AND MAPPING PROFESSIONAL SERVICES CERTIFICATION

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

1.00 TRANSPORTATION PLANNING

This class of work encompasses all aspects of transportation planning, necessary to generate comprehensive studies ranging in scope from the total transportation of a regional area to elements of a specific mode within an urban area. These studies may involve forecasting of short and long range transportation needs; evaluation of alternate transportation systems and their location within a study area; and feasibility analyses in connection with specific transportation modes and their facilities, including engineering, life cycle costs, revenue and ecological considerations. The above mentioned transportation modes include roadway and rail systems, ports and waterway systems, and aviation systems; and their study may concern the improvement or expansion of existing facilities, construction of new facilities and potential mass and rapid transit applications. The work may include data collection, modeling, alternate system testing, construction cost estimating, system and site selections, public interaction program and permitting process participation, conceptual systems design and planning, and preparation of summary reports on study findings with all necessary test and exhibits.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers. Applicants without registration, may be given a restricted certification to perform activities encompassed by the class of work, which is not defined as the practice of engineering by the Florida State Board of Professional Engineers.

ADEQUACY OF PERSONNEL:

At least one Florida registered professional engineer is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Category Information Forms must contain specific information as to the technical nature of projects demonstrating satisfactory experience activities required by this class by the full-time employed Florida registered professional engineer(s) in their specific fields, used by the firm to obtain County Certification.

The Certification Certificate will indicate the main work class category number (1.00) preceded by the applicable work class designations (1.01 through 1.04) listed below.

1.01 URBAN AREA AND REGIONAL TRANSPORTATION PLANNING

1.02 MASS AND RAPID TRANSIT PLANNING

1.03 AVIATION SYSTEMS AND AIRPORT MASTER PLANNING

1.04 PORT AND WATERWAY SYSTEMS PLANNING

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) or other professional(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

2.00 MASS TRANSIT SYSTEMS

This class of work is defined as the development of all physical elements and operational aspects of mass transit systems comprised of one or more transportation modes. The work may include: management of system development programs from concept to operational readiness, involving coordination between government agencies, consultants, contractors and vendors, and the monitoring or performance of all necessary planning, design contracting, purchasing, construction, testing and programming activities; performance of feasibility and technical studies relative to the management, operation, design, equipment and other requirements of existing and proposed mass transit systems, including data collection and interpretation, community interaction program participation, economic assessments, engineering and environmental analyses, and preparation of funding applications and summary reports with recommendations; development of prototype vehicles or devices, associated propulsion/drive systems and operational sub-systems for mass transit applications, including comparative technical; economic and environmental analyses of state-of-the-art systems and the design, modeling, building, installation, testing, demonstration and evaluation of prototype vehicles or innovative mass transit concepts; and providing complete design, preparation of construction documents, administration of construction or installation contracts, testing and operational programming for modification of existing mass transit system components or addition of new components such as: vehicle control and operational systems, communication and public information systems, elevated and underground structures for vehicle conveyance, electrical and mechanical systems, and buildings such as stations, terminals, and operations, maintenance and administration facilities.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.

ADEQUACY OF PERSONNEL:

At least one Florida registered professional engineer is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Category Information Forms must contain specific information as to the technical nature of projects demonstrating satisfactory experience activities required by this class by the full-time employed Florida registered professional engineer(s) in their specific fields, used by the firm to obtain County Certification.

The Certification Certificate will indicate the main work class category number (2.00) proceeded by the applicable work class designations (2.01 through 2.06) listed below.

2.01 MASS TRANSIT PROGRAM (SYSTEMS) MANAGEMENT

2.02 MASS TRANSIT FEASIBILITY & TECHNICAL STUDIES

2.03 MASS TRANSIT VEHICLE & PROPULSION SYSTEMS

2.04 MASS TRANSIT CONTROLS, COMMUNICATIONS & INFORMATION SYSTEMS

2.05 GENERAL QUALITY ENGINEERING

2.06 MASS TRANSIT SAFETY CERTIFICATION FOR SYSTEM ELEMENTS

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

2.05 General Quality Engineering

This class of work is defined as the planning, design, preparation of documentation, and administration of Transit Quality Assurance Program Plans. The work may include: development of comprehensive quality systems for transit projects; estimate of cost of quality assurance and quality control activities for projects and contracts; monitoring of implementation of quality programs; evaluation of effectiveness of quality programs; quality engineering studies to identify, evaluate and solve technical problems of processes.

PROFESSIONAL STATUS:

At least one member of the American Society for Quality (ASQ) with one or more of the following certifications: ASQ Certified Quality Engineer (CQE), ASQ Certified Quality Manager (CQM), ASQ Certified Reliability Engineer (CRE), ASQ Certified Quality Auditor (CQA), Registration Accreditation Board (RAB) Certified Management Systems Auditor.

ADEQUACY OF PERSONNEL:

The number of certified professionals and other supporting personnel required for specific projects will be determined during the consulting selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personal required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Documented evidence of relevant experience of firm's professionals must include specific information as to the nature of projects demonstrating leading role in the development and management of quality projects or systems in accordance with international quality standards and or federal regulations. Experience in quality projects compliant to the Federal Transit Administration Quality Assurance and Quality Control Guidelines may be evaluated.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

2.06 Mass Transit-Safety Certification for System Elements

This class of work involves the performance of safety certification for fixed quideway new starts, and extensions or replacement of existing system elements.

PROFESSIONAL STATUS:

A Bachelor's Degree and technical training in System Safety and/or Fixed Guideway Transit System Elements are required. Responsible participation in a Safety Certification Program for a New Start System may substitute for one year of formal education.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Eight years of System Safety experience with an operating fixed guideway transit system(s) of which three years, minimum, were in a supervisory position involving the safety of the following System Elements: Automatic Train Control, Communications, Traction Power, Track, Guideway and Transit Vehicles; Central Control, Maintenance and Passenger Station Facilities, including ADA requirements; and the safety-related aspects of operations and maintenance rules, procedures and training.

The successful candidate will have demonstrated capabilities to perform Hazard Analyses, Risk Assessments and Hazard Resolution in accordance with established precedence; develop Safety Program Plans and Safety Requirements for all System Elements and have working knowledge of NFPA 130 (2000), 49 CFR 659, and FTA Technical Advisories and Guideline Documents, such as "Compliance Guidelines … for New Starts Projects", relating to Safety Certification. Responsible participation in a Safety Certification Program for a New Start System is required.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION
3.00	**HIGHWAY SYSTEMS**

This class of work encompasses site development, design of parking lot facilities, master planning and complete design, preparation of construction documents and administration of construction contracts for all types of highway facilities, including roadways, bridge structures and all aspects of traffic operations and control systems. The work includes: roadway facilities ranging from two-lane or multi-lane, limited access rural interstate highways and urban expressways, with bridges, tunnels, over/underpasses, culvert crossings, interchanges, storm drainage systems, curbs and gutters, pavement markings, signing, roadway lighting and signalization, fixed bridge structures ranging from single spans of reinforced, prestressed concrete or steel with simple bent foundations or spread footings to multi-span, high-level structures with underwater piers or complex interchange structures with curved girders; moveable bridges of all types including swing, lift and bascule bridges above water and underwater bridge and structural inspections; collection of field data such as traffic counts, travel times, origin/destination surveys, and signal inventories; research and interpretation of collected data for preparation of reports on existing traffic conditions with improvement recommendations; and development of new or improvement of existing traffic control systems, which may involve system performance and cost analyses, hardware and software design, supervision of system installation, testing, "de-bugging" and operation, development of management plans and system documentation, and training of operating personnel.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.

ADEQUACY OF PERSONNEL:

At least one Florida registered professional engineer is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Category Information Forms must contain specific information as to the technical nature of projects demonstrating satisfactory experience activities required by this class by the full-time employed Florida registered professional engineer(s) in their specific fields, used by the firm to obtain County Certification

The Certification Certificate will indicate the main work class category number (3.00) proceeded by the applicable work class designations (3.01 through 3.12) listed below.

3.01 SITE DEVELOPMENT AND PARKING LOT DESIGN

3.02 HIGHWAY DESIGN

3.02A TUNNEL DESIGN

3.03 BRIDGE DESIGN

3.04 TRAFFIC ENGINEERING STUDIES

3.05 TRAFFIC COUNTS

3.06 TRAFFIC CALMING

3.07 TRAFFIC SIGNAL TIMING

3.08 INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS, DESIGN, AND IMPLEMENTATION

3.09 SIGNING, PAVEMENT MARKING, AND CHANNELIZATION

3.10 LIGHTING

3.11 SIGNALIZATION

3.12 UNDERWATER ENGINEERING INSPECTION

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

Firms must meet certain minimum specific requirements as detailed below, for certification in each of the following sub-categories:

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

3.01 Site Development and Parking Lot Design

Description of Services:

- This type of work includes designing, preparing construction plans, and writing specifications for site development projects and parking lot facilities. The design shall include geometric layout, pavement design, grading, storm drainage, marking and signing.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

3.02 Highway Design

Description of Services:

- This type of work includes, master planning and complete design, preparation of construction documents and administration of construction contracts for all types of highway facilities, including roadways. The work includes: roadway facilities ranging from two-lane to multi-lane, limited access rural interstate highways and urban expressways, with tunnels, over/underpasses, culvert crossings, interchanges.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

3.02A Tunnel Design

Description of Services:

- This type of work includes master planning and complete design, preparation of construction documents and administration of construction contracts for all types of tunnel facilities, both vehicular and utility. The work includes tunnel facilities ranging from two-lane to multi-lane.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

3.03 Bridge Design

Description of Services:

- This type of work includes, master planning and complete design, preparation of construction documents and administration of construction contracts for all types of bridge structures. The work includes: over/underpasses, culvert crossing, interchanges, fixed bridge structures ranging from single spans of reinforced, prestressed concrete or steel with simple bent foundations or spread footings to multi-span, high-level structures with underwater piers or complex interchange structures with curved girders; moveable bridge of all types including swing, lift and bascule bridges above water and underwater bridge and structural inspections.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

3.04 Traffic Engineering Studies

Description of Services:

- This type of work is defined as the study of operational problems and the determination of traffic operational improvements for efficiency and safety. This work group includes studies for the following: signing, marking, and signal inventories; intersection and collision diagrams; signal warrant and intersection analysis; and travel time and delay studies. Many of the traffic engineering studies require knowledge and experience with traffic engineering computer programs such as SOAP, PASSER, and TRANSYT. This type of work requires the consultant to make specific recommendations to improve the operation efficiency at a particular location.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

3.05 Traffic Counts

Description of Services:

- This work includes conducting 24 hour, one to three day counts for approximately 450 permanent traffic count stations annually, or one-day 24 hours traffic counts, on as needed basis.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

3.06 Traffic Calming

Definition:

- Traffic calming is the combination of physical measures that reduce the negative effects of motor vehicle use by changing the design of streets, and installing traffic calming devices to slow and reduce traffic, while encouraging pedestrians and cyclists activities.
  Traffic calming reduces traffic accidents, increases the safety of pedestrians, eliminates noise and pollution, enhances neighborhood aesthetics, and reduces crime.

Description of Services:

- This type of work includes operational analysis, designing, and preparing construction plans for traffic calming devices.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

3.07 Traffic Signal Timing

Description of Services:

- This type of work is defined as the timing of traffic signals to improve traffic flow and safety. This type of work includes data collection, intersection analysis and documentation, section analysis and documentation, timing implementation and fine tuning and timing, and timing evaluation.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

3.08 Intelligent Transportation Systems Analysis, Design, and Implementation

Description of Services:

- This type of work is defined as the use of electrical engineering, electronics engineering, computer science, and traffic engineering to analyze, design, and implement real-time intelligent transportation systems. This includes system performance and cost analysis, system hardware and software design, development of management plans, system installation and operation, system testing and debugging, system documentation, and the training of operations personnel.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

3.09 Signing, Pavement Marking, and Channelization

Description of Services:

- This type of work includes designing, preparing construction plans, and writing specifications for signing, pavement marking, and channelization. Such work involves structural support and foundation calculations, and requires a basic knowledge of traffic engineering studies.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

3.10 Lighting

Description of Services:

- This type of work includes designing, preparing construction plans, and writing specifications for roadway lighting improvements. Such work involves lighting calculations, pole location, foundation design, electrical circuit calculations and power supply and distribution design, and requires a basic knowledge of traffic engineering studies.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

3.11 Signalization

Description of Services:

- This type of work includes designing, preparing construction plans, and writing specifications for traffic signalization. Such work involves capacity calculations, signal operating plan development, timing calculations, equipment location, pole and foundation designs, etc., and requires a basic knowledge of traffic engineering studies and traffic signal retiming.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

3.12 UNDERWATER ENGINEERING INSPECTION

Description of Services:

- All marine related engineering inspection, structural evaluation, soundings, damage assessment, design of repairs and design of County's waterward infrastructure facilities. Underwater inspections shall be performed by a Florida Registered Engineer and Certified Diver experienced in performing underwater inspections.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

4.00 AVIATION SYSTEMS

This class of work, is defined as the planning, design, preparation of construction documents and administration of construction contracts for development of new, or improvement and/or expansion of existing aviation systems and associated facilities. The work may include: performance of studies to determine the extent and nature of airport development required to meet the long and short term aeronautical services demands of a specific area and preparation of summary reports analyzing the environmental, socio-economic, engineering feasibility and other factors affecting such development; and complete design of new airports and/or improvements to existing airside and landside airport facilities and equipment such as runways, taxiways, passenger and cargo terminal buildings, parking structures, access roads, aircraft maintenance and storage buildings, and aircraft fueling, runway lighting and radar systems.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.
Registration with the Florida State Board of Architects.

ADEQUACY OF PERSONNEL:

At least one Florida registered professional engineer and/or registered professional architect is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Category Information Forms must contain specific information as to the technical nature of projects demonstrating satisfactory experience activities required by this class by the full-time employed Florida registered professional engineer(s) and/or architect(s) in their specific fields, used by the firm to obtain County Certification.

The Certification Certificate will indicate the main work class category number (4.00) preceded by the applicable work class designations (4.01 and 4.02) listed below.

ENGINEERING DESIGN

4.01 ENGINEERING DESIGN

4.02 ARCHITECTURAL DESIGN

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) and/or architect (s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

5.00 PORT AND WATERWAY SYSTEMS

This class of work, is defined as the planning, design, preparation of construction documents and administration of construction contracts for development of new, or improvement and/or expansion of existing port and waterway systems and associated facilities. The work may include: performance of feasibility and technical studies for sitting new port facilities, proposed new routes for water borne conveyance of passengers and cargo, determining the long and short range water transportation needs of a specific area, and finding solutions to system and facility operation problems; preparation of summary reports on study findings; and complete design of new ports and/or improvements to existing inland and coastal port facilities such as wharfs, docks, piers, breakwaters, seawalls, ramps, cargo handling and storage facilities, terminal buildings, parking areas and access roads.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.
Registration with the Florida State Board of Architects.

ADEQUACY OF PERSONNEL:

At least one Florida registered professional engineer and/or registered professional architect is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Category Information Forms must contain specific information as to the technical nature of projects demonstrating satisfactory experience activities required by this class by the full-time employed Florida registered professional engineer(s) and/or architect(s) in their specific fields, used by the firm to obtain County Certification.

The Certification Certificate will indicate the main work class category number (5.00) proceeded by the applicable work class designations (5.01 and 5.11) listed below.

5.01 ENGINEERING DESIGN

5.02 ARCHITECTURAL DESIGN

5.03 CRUISE TERMINAL DESIGN

5.04 CRUISE TERMINAL EQUIPMENT DESIGN

5.05 CARGO TERMINAL DESIGN

5.06 CARGO TERMINAL EQUIPMENT DESIGN

5.07 SECURITY SYSTEMS

5.08 MARINE ENGINEERING DESIGN

5.09 ENVIRONMENTAL DESIGN

5.10 TRANSPORTATION SYSTEMS DESIGN

5.11 CONSTRUCTION MANAGEMENT

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) and/or architect (s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

SUB-CATEGORY DESCRIPTION OF SERVICES

5.01 ENGINEERING DESIGN

5.02 ARCHITECTURAL DESIGN

5.03 CRUISE TERMINAL DESIGN
For deep craft cruise ships

5.04 CRUISE TERMINAL EQUIPMENT DESIGN
Including baggage handling systems and passenger boarding gantry.

5.05 CARGO TERMINAL DESIGN
For deep draft cargo ships including container yard, intermodal yard and transaction/security gate.

5.06 CARGO TERMINAL EQUIPMENT DESIGN
Including ship to shore gantry cranes, container yard cranes, intermodal yard cranes and other cargo handling equipment.

5.07 SECURITY SYSTEMS
For deep draft cruise and cargo ports.

5.08 MARINE ENGINEERING DESIGN
For deep draft cruise and cargo ports including wharves, bulkheads, fenders, bollards, dolphins, bathemetric survey, dredging, corrosion protection and dock damage assessment with underwater inspection and mooring analysis.

5.09 ENVIRONMENTAL DESIGN
For deep draft cruise and cargo ports including all of the requirements of category 10.00 plus impact assessment, mitigation and permitting for dredging and other port industry impacts.

5.10 TRANSPORTATION SYSTEMS DESIGN
For deep draft cruise and cargo ports including all of the requirements of category 1.00, 2.00 and 3.00 plus both on and off Port intermodal systems for cruise passengers, cruise logistics and cargo transfer and shipment.

5.11 CONSTRUCTION MANAGEMENT (CM)
For deep craft cruise and cargo ports including all of the requirements of category 17.00 and 18.00 plus specific experience with cruise terminal, cargo terminal, dredging and mitigation projects and Seaport economic and development analysis.

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) and/or architect (s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

6.00 WATER AND SANITARY SEWER SYSTEMS

This class of work is defined as the planning, design, equipment selection, preparation of construction documents, and administration of construction contracts for all types of water and sanitary sewer service and treatment facilities. These facilities include, but are not limited to: water distribution and sewage collection systems, transmission lines of all sizes and types, pumping stations, water treatment plants and sewage treatment plants. The work may include: comprehensive studies and preparation of reports, system master planning, development of new facilities, and repair, improvement or expansion of existing facilities.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.

ADEQUACY OF PERSONNEL:

At least one Florida registered professional engineer is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Category Information Forms must contain specific information as to the technical nature of projects demonstrating satisfactory experience activities required by this class by the full-time employed Florida registered professional engineer(s) in their specific fields, used by the firm to obtain County Certification.

The Certification Certificate will indicate the main work class category number (6.00) preceded by the applicable work class designations (6.01 through 6.03) listed below.

6.01 WATER DISTRIBUTION AND SANITARY SEWAGE COLLECTION AND TRANSMISSION SYSTEMS

6.02 MAJOR WATER AND SANITARY SEWAGE PUMPING FACILITIES

6.03 WATER AND SANITARY SEWAGE TREATMENT PLANTS

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) or other professional(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

7.00 SOLID WASTE COLLECTION AND DISPOSAL SYSTEMS

This class of work, is defined as the planning, design, preparation of construction documents or operation programs, and administration of facility construction or equipment installation contacts for all types of solid waste collection and disposal system facilities. These facilities include, but are not limited to: transfer stations, incinerators, shredders, truck scales, landfills, resources recovery plants, compactors, leachate collection and treatment systems, and energy reclamation composting and recycling facilities. The work may also include preparation of feasibility evaluation of pollution control devices and recommendation of pollution abatement measures, preparation of facility construction/operation permit applications and participation in public interaction programs and other aspects of the facility permitting process.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.

ADEQUACY OF PERSONNEL:

At least one Florida registered professional engineer is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) or other professional(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

8.00 TELECOMMUNICATIONS SYSTEMS

This class of work, is defined as the planning, design, selection of components, preparation of construction documents, administration of installation contracts, testing and activation of telecommunication systems. These systems include, but are not limited to, microwave, switching, terminal and cable facilities.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.

ADEQUACY OF PERSONNEL:

At least one Florida registered professional engineer is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) or other professional(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

9.00 SOILS, FOUNDATIONS AND MATERIALS TESTING

Technical certification for Category 9.00, Soils, Foundations and Materials Testing Services has been subdivided into several sub-categories to better meet the needs of Miami-Dade County. It is the intention of the County to conduct periodic site inspections of each testing facility to ensure that the firm maintains adequate personnel and equipment for the sub-categories in which it is certified. It is the intent of the County that a firm certified in a given Sub-Category, and subsequently assigned any work, must be able to document its ability to meet the technical requirements. Additionally, in each sub-category, the firm must be able to perform a minimum of sixty percent (60%) of the assigned work with it's own workforce, equipment and facilities.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.

The firm must employ appropriately certified technicians (AWS-CWI inspectors, ACI, NICET, licensed water well contractors, etc… as specified below in each sub-category), working under the direct supervision of the firm's Professional Engineer, to provide services in each sub-category for which the firm holds technical certification.

ADEQUACY OF PERSONNEL:

At least one Florida registered professional engineer is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis, to adequately and competently perform the work in the required time frame.

PAST, RECORD, EXPERIENCE AND CAPABILITY

Category Information forms must contain specific information as to the technical nature of projects, demonstrating satisfactory experience activities required by this class, by the full-time employed Florida registered professional engineer(s) in their specific fields, used by the firm to obtain County Certification.

The Certification Certificate will indicate the main work class category number (9.00) followed by the applicable work class designations (9.01 through 9.06) listed below.

9.01 DRILLING, SUBSURFACE INVESTIGATIONS AND SEISMOGRAPHIC SERVICES

9.02 GEOTECHNICAL AND MATERIALS ENGINEERING SERVICES

9.03 CONCRETE AND ASPHALT TESTING SERVICES

9.04 NON-DESTRUCTIVE TESTING AND INSPECTIONS

9.05 ROOF TESTING AND CONSULTING

9.06 MATERIALS TESTING/CONSULTING/TRAINING

- ❑ Industrial Hygiene
- ❑ Asbestos
- ❑ Ambient Air
- ❑ Bio-Hazardous
- ❑ OSHA

Satisfactory experience must be demonstrated in the activities required by this class, by the full-time employed Florida registered engineer(s) or other professional(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

Firms must meet certain minimum specific requirements as detailed below, for certification in each of the following sub-categories:

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

9.01 Drilling, Subsurface Investigations and Seismographic Services

In order to be qualified for technical certification in Sub-Category 9.01, Drilling, Subsurface Investigations and Seismographic Services, the firm must provide documentary evidence of the following:

- The testing firm must either own or lease and operate a drill rig capable of performing, at a minimum, standard penetration tests and monitoring well installations;
- The firm must own or lease equipment to perform open-hole percolation tests in strict accordance with South Florida Water Management District's guidelines;
- The testing firm must provide documentary evidence of relevant experience performing and overseeing utility clearances, non-destructive geophysical investigations, seismographic investigations, and open-hole test pits;
- The testing firm must employ at least one full-time water well contractor licensed by the South Florida Water Management District who works under the direction of the Florida licensed Professional Engineer; and
- The testing firm must employ a Florida licensed Professional Engineer with sufficient experience in collecting, interpreting and overseeing drilling, geophysical, and related subsurface investigation projects.
- In order to be qualified for technical certification in Sub-Category 9.01, Drilling, Subsurface Investigations and Seismographic Services, the firm must provide documentary evidence of the following:
- The testing firm must either own or lease and operate a drill rig capable of performing, at a minimum, standard penetration tests and monitoring well installations;
- The firm must own or lease equipment to perform open-hole percolation tests in strict accordance with South Florida Water Management District's guidelines;
- The testing firm must provide documentary evidence of relevant experience performing and overseeing utility clearances, non-destructive geophysical investigations, seismographic investigations, and open-hole test pits;
- The testing firm must employ at least one full-time water well contractor licensed by the South Florida Water Management District who works under the direction of the Florida licensed Professional Engineer; and

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

9.01 Drilling, Subsurface Investigations and Seismographic Services - CONTINUED

- The testing firm must employ a Florida licensed Professional Engineer with sufficient experience in collecting, interpreting and overseeing drilling, geophysical, and related subsurface investigation projects.

- In order to be qualified for technical certification in Sub-Category 9.01, Drilling, Subsurface Investigations and Seismographic Services, the firm must provide documentary evidence of the following:

- The testing firm must either own or lease and operate a drill rig capable of performing, at a minimum, standard penetration tests and monitoring well installations;

- The firm must own or lease equipment to perform open-hole percolation tests in strict accordance with South Florida Water Management District's guidelines;

- The testing firm must provide documentary evidence of relevant experience performing and overseeing utility clearances, non-destructive geophysical investigations, seismographic investigations, and open-hole test pits;

- The testing firm must employ at least one full-time water well contractor licensed by the South Florida Water Management District who works under the direction of the Florida licensed Professional Engineer; and

- The testing firm must employ a Florida licensed Professional Engineer with sufficient experience in collecting, interpreting and overseeing drilling, geophysical, and related subsurface investigation projects.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

9.02 Geotechnical and Materials Engineering Services

In order to receive technical certification in Sub-Category 9.02, Geotechnical (Soils and Foundation Systems) and Materials Engineering Services, the firm must employ a full-time Florida-registered Professional Engineer who has experience in evaluating data and providing related professional engineering services regarding soils and foundation systems and building materials. The Professional Engineer must provide documentary evidence of relevant experience in foundation design and foundation systems such as: experience in understanding, recommending and inspecting typical local pile systems, including pre-cast, auger cast, Franki, Vibroflotation and drilled shaft; slope analysis and stability; storm water drainage, and mounding studies. Furthermore, the Professional Engineer must provide documentary evidence of relevant experience associated with materials engineering and field inspections for soils and foundation systems, concrete and asphalt. The registered Professional Engineer must include a statement indicating that he is experienced and prepared to provide professional engineering recommendations pertaining to building materials, including, but not limited to: asphalt, concrete, masonry and mortar, soils, foundation systems, and steel.

CATEGORY SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

9.03 Concrete and Asphalt Testing Services

In order to meet the technical requirements for Sub-Category 9.03, the firm must provide documentary proof that it has an in-house, licensed laboratory, and appropriately licensed and certified technicians in each related discipline. The testing lab must either own and operate, or lease sufficient equipment to perform soils, concrete and asphalt testing and inspection services. Specifically, the following requirements must be met in order to be certified in Sub-Category 9.03:

- At a minimum, the testing lab must be certified by the Construction Materials Engineering Council (CMEC). The lab must be owned and operated by the testing lab company and cannot be leased from a third party. The equipment in the lab may be leased or owned by the testing firm, but the testing lab must be licensed and certified in the name of the testing lab;

- The testing lab must have current certification from HRS to own or lease and store/operate field nuclear density gauges;

- The testing lab must own and operate, or lease, at least one nuclear density gauge;

- The testing lab Professional Engineer, in order to perform related field-testing services in each discipline, must provide documentary evidence that it employs NICET, ACI, and FDOT certified technicians, working under the direct supervision of the Professional Engineer, to perform field tests in each discipline;

- The testing lab must provide documentary evidence of its ability, experience and equipment (owned or leased) to provide, at a minimum, the following asphalt tests: Marshall Method Asphalt paving design mix, asphalt extraction and gradation per ASTM D-992 and D-1073, Asphalt bituminous content by extraction per ASTM D-2172, asphaltic concrete extraction and stability tests per ASTM D-1559, asphaltic concrete densities and thickness measurements, Quality Assurance inspections (including placement, temperature) and certified asphalt plant inspections by FDOT certified technicians;

- The testing lab must provide documentary evidence of its ability, experience and equipment (owned or leased) to provide, at a minimum, the following concrete tests: concrete aggregate testing unit weight, LA abrasion, moisture and absorption, gradation, soundness, specific gravity, organic and salt content per applicable ASTM standards; concrete design mix per ACI 211; concrete strength testing (compressive per ASTM C-31 & C-39); flexural strength (beams) per ASTM C-293, split tensile per ASTM C-496; gunite and shot Crete test;

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

9.03 Concrete and Asphalt Testing Services - CONTINUED

- Statistical analysis of break sequences; concrete field testing services (placement, slump, air content, unit weight, temperature, batch and pre-cast plant inspections); lightweight insulation testing, evaluation of cured concrete (Schmitt hammer, Windsor probe, ultrasonic testing, concrete coring, thickness measurement, compression testing); and reinforcement locations by R-meter or x-ray; and

- The testing lab must provide documentary evidence of its ability, experience and equipment (owned or leased) to provide, at a minimum, the following soils and foundation systems testing services: earthwork testing and inspections (proof rolling, qualification of fill material, soil density or compaction tests by both the nuclear and sand cone method); stripping and filling inspections; soil stabilization testing and inspections (lime rock bearing ratio (LBR) per FDOT FM-5 515, California Bearing Ratio (CBR), Florida Bearing Value (FBV), and plate load tests per ASTM D-1196); pile installation record logging and pile load tests per ASTM D-1143 & ASTM D-3689); and soil laboratory testing (Proctor by ASTM-1557, gradations per ASTM C-117, organic content per ASTM-2974, pH test, Atterberg limits per ASTM D-4318, Chloride content per ASTM D-516, Resistivity per ASTM F-43 and Carbonates per ASTM D-4373);

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

9.04 Non-Destructive Testing and Inspections

In order to meet the technical requirements for Sub-Category 9.04, the firm must provide documentary evidence that it has the required in-house licenses, certifications and certified technicians. Furthermore, the required testing lab must either own/operate, or lease sufficient equipment to provide non-destructive testing and inspection services. The services must, however, be performed under the name of the testing lab that is actually performing the work. In particular, the testing lab shall meet the following minimum requirements to obtain certification in Technical Sub-Category 9.04:

- The testing lab must employ at least one full-time AWS-CWI (American Welding Society-Certified Welding Inspector), working under the direct supervision of a registered Professional Engineer, for welding inspection and qualification services;

- The testing lab must document experience in conducting reinforcing steel testing and inspections (pre-stress jack equipment calibrations, tensile/elastic modulus of post tension cable, stressing inspections, post-tension tendon locations, mill certification review, tensile testing per ASTM A-370, and placement inspections). Including bolt tension testing;

- The testing lab must document experience performing and interpreting various non-destructive test methods such as radiography (RT); magnetic particle (MT); Dye Penetrant Testing (PT); Ultrasonic Testing (UT) and Holiday Testing;

- The testing lab must provide documentary evidence of experience in conducting and evaluating coating inspections and testing, which may include: fireproofing (Thickness per ASTM E-605, Unit weight per ASTM E-605 and Adhesion/Cohesion per ASTM E-736); and

- The testing lab must provide documentary evidence of experience in conducting and evaluating painting inspections and testing including: profiling sand blasted surface, and paint coating thickness measurements utilizing a Took's gauge;

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

9.05 Roof Testing and Consulting

In order to meet the technical requirements for Sub-Category 9.05, the firm must provide documentary evidence of licenses, certification and that the technicians employed by the firm are certified. At a minimum, the firm must employ at least one Registered Roof Observer and one Registered Roof Consultant certified by the Roof Consulting Institute working under the supervision of the testing lab's Professional Engineer to obtain certification in Sub-Category 9.05. Furthermore, the testing lab must also either own and operate, or lease sufficient equipment to provide both destructive and non-destructive roof testing and inspection services, and must meet the following minimum requirements to be technically certified in Sub-Category 9.05:

- The testing lab must employ at least one Registered Roof Observer or Registered Roof Consultant by the Roof Consulting Institute, working under the direct supervision of the Professional Engineer, to oversee all the roof testing and/or inspection services;

- The testing lab must provide documentary evidence of experience and availability of equipment either owned or leased (moisture meters, dec scanners, infrared, coring equipment etc..) to conduct and evaluate roof inspections and testing services such as: wind uplift, pull tests, moisture surveys, roof cores, roof calculations and recommendations for repair or replacement;

- The testing lab must provide documentary evidence of experience in developing roof plans and technical specifications, including recommendations.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

9.06 Materials Testing/Consulting/Training

In order to meet the technical requirements for Sub-Category 9.06, the firm must provide documentary evidence of licenses, certifications, and that the technicians employed by the firm are certified (see below). Furthermore, the testing lab must either own and operate, or lease sufficient equipment for work contemplated in each work authorization to provide asbestos, lead paint, indoor air and ambient air quality, and bio-hazardous testing inspection services. In particular, the firm must meet the following minimum requirements to be technically certified in Sub-Category 9.06:

- In order to accept a work assignment involving lead in paint, the testing firm must be licensed with EPA Region IV to conduct lead paint services and must own and operate, or show evidence that it leases at least one x-ray fluorescence (XRF) unit for non-destructive lead paint surveys;

- In order to accept a work assignment involving asbestos, the testing firm must have EPA certified Asbestos inspectors, project monitors, and project designers working under the direct supervision of a Professional Engineer licensed as an Asbestos Consultant. The firm must also hold license with the Department of Business and Professional Regulation as a Licensed Asbestos Consulting Firm (ZA license), a copy of which must be submitted at the time of application for Sub-Category 9.06. The firm must provide documentary evidence of EPA certified asbestos inspectors capable of providing surveys and appropriately certified to provide abatement designs and monitoring services. All asbestos work must be signed and sealed by a Florida Registered Professional Engineer, holding all appropriate asbestos consulting licenses and asbestos certifications for asbestos-containing buildings materials;

- In order to accept a work assignment involving indoor air quality, ambient air quality or bio-hazardous testing and consulting, the testing lab must employee a full-time Certified Industrial Hygienist, working under the supervision of the Professional Engineer, to conduct such studies. The testing firm must submit a copy of the Certified Industrial Hygienists certification at the time of application for Sub-Category 9.06.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

9.06 Materials Testing/Consulting/Training - CONTINUED

- In order to accept a work assignment involving training services related to any of the services outlined in Sub-Category 9.06, the testing lab must submit in its application, a list of all owned training equipment, the location of its training facility including capacity, and resumes of the trainers at the time of application. For asbestos and lead paint training the testing firm must also provide evidence of certification to provide such training by the EPA and State of Florida, as appropriate.
- In order to accept a work assignment involving asbestos laboratory analysis, the testing firm must own and operate its own NVLAP-certified asbestos laboratory for Polarized Light (PLM), Phase contrast (PCM) and Transmission Electron Microscopy (TEM) to provide the entire necessary laboratory services. The testing lab may sub-contract with an independent NVLAP – certified asbestos lab, provided that the total value of the lab services does not exceed thirty percent (30%) of the total value of each asbestos-related work assignment.
- In order to accept a work assignment involving chemical laboratory analysis, the testing firm must own and operate it's own HRS/FDEP certified chemistry lab for lead paint analysis, or sub-contract services to a qualified lab. However, the total value of the lab services may not exceed 30% of the total value of each work assignment. Furthermore, the testing lab is prohibited from marking-up on sub-contracted chemistry services.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

10.00 ENVIRONMENTAL ENGINEERING

This class of work is defined as the estimation of the effects of man on the environment and on human, animal and plant life. Factors to be assessed include, but are not limited to: effects on natural resources; erosion and sedimentation; coastal and freshwater wetland communities; wildlife habitat and migration; air, water and soil pollution; groundwater and surface water movement and flow; and groundwater quality. The work involves the performance of studies and preparation of summary reports for environmental assessments of contaminated sites, proposed land development, transportation improvements, etc.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers. Applicants without registration may be given a restricted certification to perform activities encompassed by the class of work indicated above which is not defined as the practice of engineering by the Florida State Board of Professional Engineers. Professional status is determined by Dade County through the evaluation of the applicant's past record, education, and capabilities in this class of work.

ADEQUACY OF PERSONNEL:

At least one Florida registered professional engineer is required for those areas of work indicated above as the practice of engineering by the Florida State Board of Professional Engineers. Additional professional personnel to be certified in this category, may include a Florida licensed professional geologist, a degreed biologist, and a degreed chemist with expertise in their respective areas of work described above. The number of respective professionals in this category and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Category Information Forms must contain specific information as to the technical
Nature of projects demonstrating satisfactory experience activities required by this class by the full-time employed Florida registered professional engineer(s) in their specific fields, used by the firm to obtain County Certification.

The Certification Certificate will indicate the main work class category number (10.00) preceded by the applicable work class designations (10.01 through 10.10) listed below.

10.01 STORMWATER DRAINAGE DESIGN ENGINEERING SERVICES

10.02 GEOLOGY SERVICES

10.03 BIOLOGY SERVICES

10.04 CHEMISTRY SERVICES

10.05 CONTAMINATION ASSESMENT AND MONITORING

10.06 REMEDIAL ACTON PLAN DESIGN

10.07 REMEDIAL ACTION PLAN INTEMENTATION/ OPERATIONS/ MAINTENANCE

10.08 PATHOGEN AND CONTAMINANT RISK ANALYSIS

10.09 WELLFIELD, GROUNDWATER, AND SURFACE WATER PROTECTION AND MANAGEMENT

10.10 COASTAL PROCESSES AND OCEAN ENGINEERING

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) or other professional(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

Firms must meet certain minimum specific requirements as detailed below, for certification in each of the following sub-categories:

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

10.01 Stormwater Drainage Design Engineering Services

In order to receive technical certification in Sub-Category 10.01, Stormwater Drainage Design Engineering Services, the firm must provide documentary evidence of the following:

- A full-time Florida-registered Professional Engineer. The P.E. must submit a statement indicating the he/she is familiar with Ch. 24-12 and Ch. 24-58 and Ch. 24-60, as well, as all drainage related permitting procedures. **This information must be provided on the Category Information Form.**

- Successful experience associated with all current standards and regulations related to drainage, such as those required by the South Florida Water Management District (SFWMD), the Florida Department of Environmental Protection (FDEP), Miami-Dade County Environmental Resources Management and Public Works departments.

- Five years of experience evaluating data and providing related professional engineering services regarding stormwater drainage retrofit systems designs, soils data provided by the geotechnical firms, topographic surveys, and infrastructure as-built information related to the job sites.

- Five years of experience in stormwater drainage design such as: experience in understanding, recommending and inspecting typical drainage retrofits projects, including but not limited to: full on site drainage systems, drainage systems with emergency overflows, drainage wells, and minor stormwater pump stations which can include their own emergency stand-by generators.

- Five years of experience in providing professional engineering recommendations pertaining to the required engineering calculations and the use of the necessary computer software approved and used by the above-mentioned agencies. This software includes but is not limited to Interconnected Channel and Pond Routing Model (ICPR Advanced) and the RC-4 flood routing program.

- Capability to perform calculations that will require the use of the mass diagram of inflows and outflows, a backwater profile and the use of the SFWMD formulas as shown in Volume IV of the permit manual.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION
10.02	GEOLOGY SERVICES
10.03	BIOLOGY SERVICES
10.04	CHEMISTRY SREVICES

10.05 Contamination Assessment and Monitoring

In order to receive technical certification in Sub-Category 10.05, Contamination Assessment and Monitoring, the firm must provide documentary evidence of the following:

- Five years experience performing approvable Site Assessments in accordance with all applicable regulations and guidelines including Ch. 62-770, FAC and Ch. 24-11.1, MDCC, as applicable as well as the technical reports used in their development.
- A full-time Florida Registered Professional Engineer or Florida Registered Professional Geologist. The PE or PG must include a statement indicating that s/he has a clear understanding of the current codes and standards relating to soil and groundwater assessment in South Florida. Furthermore, the PE must include a statement indicating that s/he has a clear understanding of South Florida geology. **This information must be provided on the Category Information Form.**
- Adequate number of experienced field staff for the performance of sampling and analyses of a variety of media in accordance with Ch. 62-160, F.A.C., Quality Assurance.
- OSHA Certification as applicable.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

10.06 Remedial Action Plan Design

In order to receive technical certification in Sub-Category 10.06, Remedial Action Plan Design, the firm must provide documentary evidence of the following:

- A full-time Florida Registered Professional Engineer. The PE must include a statement indicating that s/he will comply with the current codes in South Florida, including those relating to contamination remediation. A full-time Florida Registered Professional Geologist may substitute for the PE, as applicable and based on the type of remediation being proposed, such as soil excavation or a method of remediation not involving any remedial system design. The PG must include a statement indicating that s/he will comply with the current codes in South Florida. **This information must be provided on the Category Information Form.**

- Compliance with all requirements set forth in Miami-Dade County Professional Services Certification Category 10.00 Environmental Engineering.

- Capability to evaluate site-specific contamination assessment data and all related technical documentation and to perform the necessary engineering calculations in order to provide cost effective professional engineering recommendations and remedial system design.

- Successful completion of Remedial Action Plans in accordance with all applicable regulations and guidelines, including Ch. 62-770.700, FAC, and Ch. 24-11.1, MDCC, as applicable, to include at least five (5) groundwater extraction systems, five (5) soil vacuum extraction systems, two (2) air sparging systems and five (5) source removal projects. For the groundwater extraction systems, soil vacuum extraction systems and air sparging systems, the designs shall have included multiple extraction/injection wells and technical calculations for groundwater/vapor conveyance systems and groundwater disposal systems, as applicable. Experience with bioremediation and new and innovative technologies are desired.

- Experience in performing fate and transport modeling and in the development of Risk Assessments in accordance with all applicable regulations and guidelines, including Ch. 62-770.650, FAC, and Ch. 24-11.1, MDCC, as applicable, is desired.

- Ability to prepare approvable, engineered remedial design plans for permitting by all applicable agencies in accordance with all applicable regulations, codes and guidelines.

- Adequate number of experienced field staff for the performance of sampling and analyses of a variety of media in accordance with Ch. 62-160, F.A.C., Quality Assurance.

- OSHA Certification as applicable.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

10.07 Remedial Action Plan Implementation / Operation /Maintenance

In order to receive technical certification in Sub-Category 10.07, Remedial Action Plan Implementation / Operation / Maintenance, the firm must provide documentary evidence of the following:

1. A full-time Florida Registered Professional Engineer. The PE must include a statement indicating that s/he will comply with the current codes in South Florida, including those relating to contamination remediation. A full-time Florida Registered Professional Geologist may substitute for the PE, as applicable and based on the type of remediation being proposed, such as soil excavation or a method of remediation not involving any remedial system design. The PG must include a statement indicating that s/he will comply with the current codes in South Florida. **This information must be provided on the Category Information Form.**

- Ability to perform and complete the installation and start-up of a Remediation System pursuant to the permitted plans and prepare approvable engineering drawings ("as-builds") following the completion of the installation in accordance with all applicable regulations, codes and guidelines.

- Successful installation/startup/operation of Remediation Systems in accordance with all applicable regulations and guidelines, including Ch. 62-770.700, FAC, and Ch. 24-11.1, MDCC, as applicable, to include at least five (5) groundwater extraction systems, five (5) soil vacuum extraction systems, two (2) air sparging systems and five (5) source removal projects. The groundwater extraction systems, soil vacuum extraction systems and air sparging systems shall have included multiple extraction/injection wells and the installation of groundwater/vapor conveyance systems and groundwater disposal systems, as applicable. Experience with implementation of bioremediation and new and innovative technologies are desired.

- Ability to inspect, maintain, repair and monitor existing remedial systems for continued operation and to evaluate systems to determine appropriateness to continue system operation.

- Adequate number of experienced field staff for the performance of the above duties and for sampling and analyses of a variety of media in accordance with Ch. 62-160, FAC.

- Compliance with all requirements set forth in Miami-Dade County Professional Services Certification Category 10.00 Environmental Engineering.

- OSHA Certification as applicable.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

10.08 Pathogen and Contaminant Risk Analysis

In order to receive technical certification in Sub-Category 10.08 Pathogen and Contaminant Risk Analysis, the firm must provide documentary evidence of the following:

- The firm must be capable of providing the development and application of pathogen/contaminant risk analyses for groundwater and surface water. It is highly desired that the firm will conduct quantitative and qualitative assessment in deriving risk to well fields, flora, and fauna employing state of the art interdisciplinary methods. The firm is expected to have both research and applied experiencing in determining and predicting risk for a semi-rural and urban setting. Prior publication in peer-reviewed journals is desired. . The firm must also provide written assurance that it will follow the standards outlined in the Florida Department of Environmental Protection's *Standard Operating Procedures for Field Activities*, which became effective April 9, 2002, for applicable environmental field activities. **This information must be provided on the Category Information Form.**

- The firm must employ or subcontract with a firm which employs an advanced degreed scientist (environmentalist, biologist, chemist, microbiologist, etc.) with significant coursework in topics such as calculus and statistics; epidemiology; ecological and chemical toxicology; quantitative and qualitative research methods; and human health, ecological and environmental risk assessment and decision analysis.

- The scientist should have a minimum of five (5) years of experience in one or more of the following areas and provide documentary evidence of: assessing pathogen/contaminant risk to drinking water supplies, predicting environmental impacts, assessing risk to terrestrial and aquatic ecosystems, conducting decision analysis for environmental restoration projects or other related health and environmental risk issues.

- Documented evidence of relevant experience must include grants, project reports and publications in scientific journals in the professional's area of expertise wherein the professional is listed as project principal or co-principal.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

10.09 Wellfield, Groundwater, and Surface Water Protection and Management

In order to receive technical certification in Sub-Category 10.09, Wellfield, Groundwater, and Surface Water Protection and Management, the firm must provide documentary evidence of the following:

- The firm must be capable of providing the development, calibration and utilization of applicable groundwater, surface water, stormwater routing, contaminant transport, and hydrologic/hydraulic simulation models, coupled density-dependent flow models, stochastic models, including but not limited to MODFLOW, XP-SWMM (version 7.5 or higher), and Visual Hydro, along with the appropriate pre and post processing packages for modeling projects. Ancillary software must include, but not be limited to, Auto-CAD Land Development Desktop 2000 (with Auto-CAD 2000 engineering design tool or latest version), CORPSCON (U.S. Army Corps of Engineers system coordinates translator tool), and PEAKFQ and ANNIE (U.S. Geological Survey statistical hydrology analysis tools). The firm must provide documentary evidence of five years successful experience associated with conducting the above referenced tasks.

- The firm must have the capability to evaluate and delineate wellfield protection zones and applicable hydraulic travel times.

- The firm must be capable of performing wellfield protection planning and monitoring activities, including but not limited to, installation of monitoring sites and characterization of aquifer properties and provide documentary evidence of five years of practical field and/or laboratory experience associated with conducting these tasks. The firm must also provide written assurance that it will follow the standards outlined in the Florida Department of Environmental Protection's *Standard Operating Procedures for Field Activities*, which became effective April 9, 2002, for applicable environmental field activities. **This information must be provided on the Category Information Form.**

- Five years successful experience in investigating contamination incidents, including evaluation of data and production of written reports describing findings.

- Five years successful experience in evaluating and modeling regionally and locally proposed hydrologic modifications, including infrastructure and operational changes as they relate to natural systems protection and enhancement, wellfield and water quality protection, salt-water intrusion control, flood protection, and control of sediment transport and settling within water conveyance systems.

- The firm must be capable of providing specialized expertise in statistics, microbiology, environmental chemistry, hydrology, geology, hydrogeology (and other technical disciplines on an as needed basis) and provide documentary evidence of at least five 5 years of relevant experience associated with these scientific disciplines.

- Five years successful experience in reviewing and providing written commentary on County and /or third party technical reports relating to the above described activities to assist in project planning and providing technical, graphical, and expert assistance at public forums and presentations.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

10.10 Coastal Processes and Ocean Engineering

In order to receive technical certification in Sub-Category 10.10, Coastal Processes and Ocean Engineering, the firm must provide documentary evidence of the following:

- A full-time Florida Registered Professional Engineer. The PE must include a statement indicating that he/she is familiar and will comply with the current codes in South Florida. **This information must be provided on the Category Information Form.**

- Five years experience in preparing approvable federal, state and local permit applications for beach renourishment, dredging or filling in Biscayne Bay or other estuaries designated as Outstanding Florida Waters, state submerged land easements or leases, artificial reefs and mangrove alteration. Documentation will include actual permits for the above types of projects.

- Five years successful experience in performing hydrographic, circulation and/or sediment transport modeling in estuaries or offshore waters.

- Successful experience in designing at least two (2) coastal wetland, coral reef, or beach restoration and revegetation projects.

- Adequate equipment and staff experienced in data collection and analysis using advanced underwater mapping and sampling technology, remote sensing technology, and geologic sampling for modeling or monitoring coastal and wetland processes or biological communities.

- Five years experience in preparing approvable designs and supervision of construction of docks, piers, or coastal erosion control structures.

- Five years experience conducting coastal wetland delineation pursuant to Section 373.421(1) F.S. and employing habitat assessment criteria used in connection with state, federal, and local permitting programs for work in wetlands and tidal waters.

- Adequate number of experienced field staff certified to perform underwater assessment or sampling using SCUBA apparatus.

- Demonstrated experience and knowledge of the development, implementation and utilization of GIS databases in the analysis of Coastal resources

- The firm must meet all the requirements set forth by Category 10.00.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

GENERAL STRUCTURAL ENGINEERING

11.00

This class of work, is defined as the planning, design, preparation of construction documents and administration of construction contracts for all types of structural engineering projects, including but not limited to buildings and support facilities for communications systems. The work also includes inspection of existing structures and preparation of reports with assessments of their condition and recommendations as to their repair or renovation.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.

ADEQUACY OF PERSONNEL:

At least one professional engineer registered in Florida by examination in the disciplines necessary to perform the above work is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) or other professional(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

12.00 GENERAL MECHANICAL ENGINEERING

This class of work is defined as the planning, design selection of equipment, preparation of construction documents and administration of installation contracts for all types of mechanical systems. These systems include, but are not limited to: heating, ventilation and air conditioning systems; plumbing, piping and air/fluid flow systems; refrigeration systems; fire protection; coilers, turbines, heat exchangers, fans, pumps and blowers; fueling systems for aircraft and specialized mechanical equipment for mass transit systems. The work also includes inspections of existing systems and preparation of reports with assessments of their condition and recommendations as to their repair or refurbishment.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.

ADEQUACY OF PERSONNEL:

At least one professional engineer registered in Florida by examination in the disciplines necessary to perform the above work is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) or other professional(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

13.00 GENERAL ELECTRICAL ENGINEERING

This class of work is defined at the planning, as-built, design, selection of equipment, preparation of construction documents, and construction administration for all types of AC and DC electrical systems. These systems include, but are not limited to: motors, generators, transformers, interior and outdoor lighting, and lightning arrestors; electrical heating, ventilation and air conditioning loads; and specialized electrical equipment for mass transit systems. The work also includes inspections of existing systems and preparation of reports with assessments of their condition and recommendations as to their repair or refurbishment.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.

ADEQUACY OF PERSONNEL:

At least one professional engineer registered in Florida by examination in the disciplines necessary to perform the above work is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) or other professional(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION
14.00	**ARCHITECTURE**

This class of work is defined as the planning, programming, design, preparation of construction documents, permitting and construction supervision for single and multi-purpose facilities and their sites. These facilities may include, but may not be limited to: terminals, parking garages, stations, fleet maintenance and storage buildings, operation centers, toll plazas, bridge tender housing, equipment maintenance, fabrication shops, etc.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Architecture.

ADEQUACY OF PERSONNEL:

At least one professional architect registered in Florida. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered architect(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

15.00 SURVEYING AND MAPPING

This class of work is defined as the provision of all types of surveying and mapping services for land, water and space, and the competent recording of field data. The work may include, but may not be limited to: photogrammetric control; the monumentation and remonumentation of property boundaries and subdivisions; the measurement and preparation of plans showing existing improvements after construction; the layout of proposed improvements; the preparation of descriptions for use in legal instruments of conveyance of real property and property rights; the preparation of subdivision planning maps and record plats; the determination of, but not the design of, grades and elevations of roads and land in connection with subdivisions or divisions of land; and the creation and perpetuation of alignments related to maps, record plats, field note records, reports, property descriptions, and plans and drawings that represent them. This work class category also includes the provision of topographic, hydrographic and geodetic surveying and mapping services.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Surveyors and Mappers.

ADEQUACY OF PERSONNEL:

At least one Florida registered professional surveyor and mapper with expertise in the areas of work described above is required. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Category Information Forms must contain specific information as to the technical Nature of projects demonstrating satisfactory experience activities required by this class by the full-time employed Florida registered professional surveyor(s) mapper(s) in their specific fields, used by the firm to obtain County Certification.

Certification Certificate will indicate the main work class category number (15.00) preceded by the applicable work class designators (15.01 and 15.02) listed below.

15.01 LAND SURVEYING
15.02 AERIAL PHOTOGRAMMETRY

Satisfactory experience must be demonstrated in the work covered by this class by the full-time employed Florida registered professional surveyor(s) and mapper(s) used by the firm to obtain Dade County Certification, and also by the other bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION

16.00 GENERAL CIVIL ENGINEERING

This class of work is defined as the planning design, preparation of construction documents for all types of civil engineering projects, including but not limited to: highways; storm drainage; water distribution and sewage collection systems; minor bridges; culverts; traffic control; site planning, which may include paving, grading and drainage design plans for buildings and other facilities, etc.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.

ADEQUACY OF PERSONNEL:

At least one professional engineer registered in Florida by examination in the disciplines necessary to perform the above work is required. The number of Florida registered professionals and other technical support personnel required for specific projects will be determined during the consulting selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personal required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered engineer(s) or other professional(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

17.00 ENGINEERING CONSTRUCTION MANAGEMENT

This class of work is defined as the administration of single or multiple construction/installation contracts for engineering projects. The work also includes the inspection and certification of the construction of engineering elements projects such as structural, mechanical and electrical systems. Services will generally require the development of a comprehensive management system for pre-construction, construction and post-construction activities, which may include: identification of potential problems, utility coordination, inspection of all stages of the construction/installation, scheduling and cost estimation, claims review, shop drawing review and approval, inspection reporting and documentation, and preparation and submittal of punch lists, as-built plans, record drawings and close-out documents.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers.

ADEQUACY OF PERSONNEL:

At least one professional engineer registered in Florida with the experience necessary to perform the above work will be required to act in the capacity of Resident Engineer. Additional professional support personnel may be required to properly supervise and inspect work not within the professional capacity of the Resident Engineer. Other technical support will be required as necessary depending on the nature, extent and complexity of the work under the contract. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered professional engineer(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

18.00 ARCHITECTURAL CONSTRUCTION MANAGEMENT

This class of work is defined as the administration of single or multiple construction/installation contracts for architectural projects. The work also includes the inspection and certification of the construction of architectural elements of projects. Services will generally require the development of a comprehensive management system for pre-construction, construction and post-construction activities, which may include: identification of potential problems, utility coordination, inspection of all stages of the construction/installation, scheduling and cost estimation, claims review, shop drawing review and approval, inspection reporting and documentation, and preparation and submittal of punch lists, as-built plans, record drawings and close-out documents.

PERSONAL STATUS:

Registration with the Florida State Board of Architecture.

ADEQUACY OF PERSONNEL:

At least one Florida registered architect with the experience necessary to perform the above work will be required to act in the capacity of Construction Manager. Additional professional support personnel may be required to properly supervise and inspect work not within the professional capacity of the Construction Manager. Other technical support will be required as necessary depending on the nature, extent and complexity of the work under the contract. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered architect(s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX

CATEGORY DESCRIPTION

19.00 VALUE ANALYSIS AND LIFE-CYCLE COSTING

This class of work, is defined as the provision of the value analysis and life-cycle costing services required by Dade County Ordinance No. 94-73, adopted by the Board of County Commissioners on May 4, 1994; thereafter amended on October 7, 1997 under Miami-Dade County Ordinance 97-172 and implemented by Administrative Order 3-26, effective August 2, 1998. "Value Analysis/Engineering" (VA/E) is defined as the systematic application of recognized techniques which identify the function(s) of a product or service, establish a monetary value for the function(s), and provide the necessary function(s) reliably at the lowest overall cost. The terms Value Engineering and Value Analysis are considered to be synonymous. Value Analysis/Engineering, is a discipline, which applies teamwork and a systematic analysis of function(s) to remove unnecessary costs from products and services. Properly executed, VA/E will maintain all the required characteristics of performance, safety, reliability, interchangeability and user acceptance and provide them at least cost. "Life-cycle costing" is defined as the process whereby all the expenses associated with the operation, maintenance, repair, replacement and alteration costs of a facility or piece of equipment are identified and analyzed.

Formal VA/E procedures will be performed as described herein on projects whose construction cost is estimated to be Five Million Dollars ($5,000,000) or more. VA/E studies are to be performed by an entity other than the project Architect/Engineer. For projects whose construction cost estimate is below the Five Million Dollar ($5,000,000) threshold, a formal VA/E study is not mandated. Principles and objectives of a VA/E study will be utilized for such projects in an informal manner and as determined by each department director and the professional staff within the department. The VA/E study will be conducted at the completion of the Design Development Phase or other appropriate stage of the project, as determined by the department, which will allow the project Architect/Engineer to consider alternative design concepts prior to the start of construction documents. A VA/E team will be composed of representatives of all applicable disciplines and estimators as determined by the Project Manager, based on scope, complexity, and size of the project. The VA/E process will consist of steps as contained in Ordinance 97-172.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Professional Engineers, Architecture and Interior Design, Landscape Architecture and/or Surveyors and Mappers. Firms without registration may be given a restricted certification to perform life-cycle costing, which is not defined as the practice of the professions regulated by the above mentioned Boards.

ADEQUACY OF PERSONNEL:

At least one Florida registered engineer or architect with the experience necessary to perform the above work. The entity retained shall be qualified in performing VA/E studies, as outlined in the American Society for Testing Materials E 1699-95 "Standard Practice for Performing Value Analysis of Building and Building Systems"; certified as Certified Value Specialists (CVS's) through SAVE International and qualified in performing the "Value Methodology Standard" of SAVE International (Society for Advancement of Value Engineering), and shall hold "Professional Services Certification" for "Value Analysis and Life Cycle Costing", category issued by the Miami-Dade County Public Works Department. The Value Analysis team leader preferably should be a Certified Value Specialist, and Associate Value Specialist or a Value Methodology Practitioner, as certified by SAVE. The VA/E study, as mandated by Administrative Order 3-26, will be performed by and entity other than the project Architect/Engineer. Members of the project Architect/Engineer (A/E) team will assist, on an as needed basis, in the VA/E process.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Category Information Forms must contain specific information as to the technical nature of projects and their association with the other professional work class categories, demonstrating satisfactory experience activities required by this class by the full-time employed Florida professional engineer(s) and/or architects(s) registered in their specific fields, used by the firm to obtain County Certification. Certification in this category shall be granted based on qualifications and the adequacy of professionals and their Value Analysis and Life-Cycle Costing experience.

The Certification Certificate will indicate the main work class category number (19.00) preceded by the applicable work class designations (19.01 through 19.20) listed below.

19.01 TRANSPORTATION PLANNING

19.02 MASS TRANSIT SYSTEMS

19.03 HIGHWAY SYSTEMS

19.04 AVIATION SYSTEMS

19.05 PORT AND WATERWAY SYSTEMS

19.06 WATER AND SANITARY SYSTEMS

19.07 SOLID WASTE COLLECTION AND DISPOSAL SYSTEMS

19.08 TELECOMMUNICATION SYSTEMS

19.09 SOILS, FOUNDATIONS AND MATERIALS TESTING

19.10 ENVIRONMENTAL ENGINEERING

19.11 GENERAL STRUCTURAL ENGINEERING

19.12 GENERAL MECHANICAL ENGINEERING

19.13 GENERAL ELECTRICAL ENGINEERING

19.14 ARCHITECTURE

19.16 GENERAL CIVIL ENGINEERING

19.20 LANDSCAPE ARCHITECTURE

CATEGORY FORM:

The following statement must be inserted at the last page of the Category Information Forms and must include signature, title, date and seal of the qualifying professional.

I hereby certify, that the above employees are qualified in performing Value Analysis and Life-Cycle Costing studies as outlined in ASTM E 1699-95, "Standard Practice for Performing Value Analysis of Building and Building Systems"; certified as Certified Value Specialists (CVS's) through SAVE International and qualified in performing the "Value Methodology Standard" of SAVE International and that to the best of my knowledge, the information contained in these forms is true and correct.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION
20.00	**LANDSCAPE ARCHITECTURE**

This class of work, is defined as the analysis, planning, design, management, preservation and rehabilitation of the land, preparation of construction documents and administration of construction contracts for landscape planting plans, setting of grades, determination of drainage and provision for storm drainage and irrigation systems, site planning, park and recreation planning, regional planning, town or urban planning, environmental restoration and historic preservation. These services may include but may not be limited to creation of public parks and parkways, site planning for office buildings, design of residential gardens, management of wilderness areas, design of gazebos, fences, waterfalls, pools, etc.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Landscape Architecture.

ADEQUACY OF PERSONNEL:

At least one professional Landscape Architect registered in Florida. The number of Florida registered professionals and other technical support personnel required for specific projects, will be determined during the consultant selection process on a project-by-project basis against the Selection Committee's estimate of the consultant personnel, required to adequately and competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Satisfactory experience must be demonstrated in the activities required by this class by the full-time employed Florida registered landscape architect (s) used by the firm to obtain County Certification, and also by the bona fide employees thereof, if required by a particular project.

CATEGORY/ SUB-CATEGORY INDEX	CATEGORY DESCRIPTION
21.00	**LAND-USE PLANNING**

A land use plan is the policy framework that communities use to guide development and land use activities. Land use includes: housing, roads, commercial and industrial uses, recreation, open space, natural resources, and public facilities.

This class of work encompasses the systematic assessment of land and water potential, alternative patterns of land use and other physical, social and economic aspects of communities, for the purpose of selecting and adopting land-use options which are most beneficial to the entire population without degrading land and water resources and/or the environment, together with the selection of measures most likely to encourage such land uses. Land-use planners work with many types of communities, small villages, large cities, counties, states and federal agencies. It may include planning of infrastructures, services and industrial settlements in order to promote the socio-economic growth of certain land regions.

The planning process typically involves the performance of the following of roles:

- Formulation of plans and policies to meet the social, economic, and physical needs of communities, and develop strategies to make these plans work.
- Development of plans for land use patterns, housing needs, parks and recreation facilities, highways and transportation systems, and economic development.
- Planners must be technically competent and creative.
- Planners work with the public to develop a vision of the future and to build on that vision.
- Planners often function as mediators among conflicting community interests; they may also become facilitators, using their professional judgment to help identify the best resolutions to the issues creating conflicts.
- Planners analyze problems, visualize futures, compare alternatives, and describe implications, so that public officials and citizens can make knowledgeable choices.
- Planners design and manage the planning process itself, in order to involve interest groups, citizens, and public officials.

PROFESSIONAL STATUS:

Certification with the American Institute of Certified Planners (AICP) is recommended.

ADEQUACY OF PERSONNEL:

The number of personnel required for specific projects, to adequately and competently perform the work in the desired time frame, will be determined during the consultant selection process on a project-by-project basis.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Category Information Forms must contain specific information as to the nature of projects demonstrating satisfactory experience activities required by this class by the full-time employees used by the firm to obtain County Certification.

CATEGORY DESCRIPTION

CATEGORY/ SUB-CATEGORY INDEX

22.00 ADA TITLE II CONSULTANT

This class of work is defined as the identification and documentation of physical accessibility barriers in public facilities that need to be removed to comply with Title II program access requirements of the ADA. It includes the preparation of ADA surveys, the analysis of existing public programs, and the development of barrier removal plans that include architectural solutions in CAD, plans and program modification recommendations to satisfy Title II compliance requirements.

PROFESSIONAL STATUS:

Registration with the Florida State Board of Architecture.

ADEQUACY OF PERSONNEL:

The number of professionals and other supporting personnel required for specific projects will be determined during the consulting selection process on a project-by-project basis. The Selection Committee will determine if the consultant's available personal is adequate to competently perform the work in the desired time frame.

PAST RECORD, EXPERIENCE AND CAPABILITY:

Documented evidence of consultant's relevant experience must include specific information on the nature of previous ADA Title II barrier removal projects and examples of architectural solutions prepared by the consultant in CAD. A minimum of one year of proven experience is required in a leading role identifying and documenting architectural barriers, analyzing programs for ADA Title II compliance, and providing barrier removal plans that include architectural solutions in CAD, plans and program modification recommendations.